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Viewpoint, Policy Forum or Opinion

Understanding China's wildlife markets: Trade and tradition in an age of pandemic

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ABSTRACT

Environmentalists have long been concerned about the rate at which China is consuming and trading in threatened and endangered wildlife. The recent COVID-19 global pandemic has made wildlife consumption an issue that concerns everyone around the world. Formerly obscure practices like wet markets and commodities like pangolin scales or bear bile have gained international notoriety. Along with that attention has come increasing politicization and ideological polarization. Beyond the global fight against the pandemic, there has been another global struggle over the meaning and origin of the disease, as evidenced by the spread of terms like “Wuhan Flu” and “bat soup.” What has become obscured by the news cycle struggling to keep up with the rapid spread of the virus and the political sound and fury surrounding it is any meaningful understanding of China's wildlife consumption and trade. Deeply ingrained in Chinese culture and history, the wildlife trade is not going away anytime soon. Despite a national ban, already wet markets are returning across China. Addressing the wildlife trade in China, we argue, requires first understanding it.

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The link between wildlife and pandemics is simultaneously obvious and contested. Ebola, Zika, SARS, and many other infectious diseases all spread through human-environment interactions. Initially, pristine wilderness teeming with diverse species was considered to be the breeding ground of these diseases (Vidal, 2020).¹ The recent COVID-19 pandemic, however, seems to demonstrate the opposite: that infectious disease can proliferate in spaces of intense human-wildlife interaction, such as the now infamous Wuhan wet market thought to be the origin of the outbreak. It confirms a growing suspicion that human exploitation of wilderness and deforestation – not pristine forests – contribute to viral outbreaks (Rulli, Santini, Hayman, & D’Odorico, 2017, Olivero et al., 2020). The take-away, then, is to keep forests intact and humans and wilderness separate (Scientific American, 2020, Trent, 2020).

Shifting the culprit of global pandemic from intact wilderness at one extreme, to deforestation and human-wildlife interaction at

the other, obscures a more significant cause and a more relevant dynamic to viral spread – namely, globalization. Transmission of infectious disease to humans is one thing, global spread is another. Wet markets in China, for example, date back millennia, but only in the past two decades have they become connected to ski resorts in the Italian alps, cruise ships in the South Pacific, and megachurches in South Korea via international trade and travel. Globalization – or rather, “hyper-globalization” (Rodrik, 2017) – is the force driving the spread of pandemic to every country on Earth. In the case of COVID-19, the “cause” then – if one could be pinpointed at all – is not an inauspicious “bat soup” somewhere in Wuhan, but rather our hyper-globalized world.

To identify globalization as a “cause” of global pandemic is, in a way, stating the obvious. But recognizing COVID-19 as a global phenomenon – and a product of a hyper-globalized world – also reinforces the need to address it globally. Global problems, after all, call for global solutions. Yet, the responses seen thus far are more likely to proffer isolationism, politicization, and ideological polarization – all of which conjure anti-globalization sentiment without any productive consideration of what contemporary forms of globalization should indeed look like. Governments around the world are now asking, some louder than others: what should be done with China? How to extract concessions? In terms of the environment, many are demanding that Chinese

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¹ This was one of the take-aways from the Ebola outbreak in 1996, which was thought to have originated from chimpanzees hunted in the forest. Many believed that Ebola outbreaks occurred in intact forests, where bushmeat hunting was still a possibility because, well, there was still bushmeat (Herman, 2014). “I don’t think it has anything to do with deforestation,” a lead virologist at the Development Research Institute commented in response to the outbreak (Vidal, 2004).

authorities stop the trade and consumption of wildlife altogether (Mukpo, 2020).

Demanding reparations from China, or the cessation of the wildlife trade, is a highly antagonistic rather than collaborative global response. Curtailing the wildlife trade in China and securing wet markets against future pandemics requires first understanding why the trade persists despite trenchant international opposition. This, in turn, requires grappling with cultural, historical, and philosophical dimensions that are only superficially acknowledged within environmental debates.

Working toward this deeper understanding, we highlight three facets of China's wildlife trade often overlooked in Western media and scholarship, but that are vital to understanding its dynamics and persistence: (1) the fundamental importance of traditional Chinese medicine in everyday life in China, (2) the speculative aspect of demand for rare wildlife, and (3) the reliance on captive breeding as a conservation tool for preventing species extinction. Together, these three factors illustrate China's wildlife trade not from the perspective of environmentalists with the mission to stop it, but from the perspective of hundreds of millions of people following millennia-old traditions in our contemporary, hyper-globalized society. They show why wildlife trade and consumption will likely persist despite the threat of pandemic, but also they provide hints for how it might be more collaboratively restricted moving forward.

1. Traditional Chinese medicine

There can be no real understanding of China's wildlife trade without addressing traditional Chinese medicine, and in particular the radical difference it reveals between how food and medicine is delineated in China versus the West. Compared to Western consumers, Chinese consumers typically do not categorize medicine and food separately; rather everything ingested has potential effects on one's health. The consumption of exotic and endangered species, therefore, is often related to health and healthful practices more than "conspicuous consumption." Wet markets are "wet" precisely because live or freshly slaughtered animals are understood to be more vital to health than those frozen or already killed.

Far from an eccentric practice that might simply fade away in the face of Western medicine, traditional Chinese medicine forms the foundation of a Chinese approach to health and vitality. The recent inclusion of traditional Chinese medicine in World Health Organization guidelines, its status as a growing cultural export (Cyranoski, 2018), and its hope for treating the virus (Ren, Zhang, & Wang, 2020) all suggest that wildlife consumption will likely become more prevalent in and outside of China, not less. This is not to say that wildlife consumption cannot be more safe and sustainable, but critiques of wet markets must be measured and specific; they cannot be conflated with critiques of traditional Chinese medicine as a whole or they will surely backfire.

2. Speculating in species

While wildlife is a vital component of traditional Chinese medicine and has been for centuries, more recently, it has also become a speculative investment. The most endangered resources in China – ivory, rhino horn, tiger parts, and rosewood – are not bought to be used and consumed, but rather for their potential to appreciate in value (Zhu, 2020a). Stocks of ivory, rhino horn, and rosewood are traded like speculative commodities and their values rise and fall based on financial events (t Sas-Rolfes et al., 2014, Gao & Clark, 2014). This may seem to have little to do with the wet markets of Wuhan, but the diversity and rarity of species found in Chinese wet markets are in fact related to this speculative dynamic. Pan-

golin – an endangered mammal suggested to be linked to the transmission of COVID-19 to humans – provides a prime example. Pangolin scales can sell for nearly \$800 per kilogram, higher than the price of silver (Challender, Harrop, & MacMillan, 2015). To be sure, the rarity and exoticism of the pangolin contributes to the value they command on the market, but the greater factor is their perceived value as a prized ingredient in traditional Chinese medicine.

The speculative dimensions of markets for endangered species are poorly documented if not entirely ignored in Western media, but need to be understood if wildlife consumption is to be curtailed. This is especially urgent given the fact that trade restrictions can have the unintended consequence of artificially driving demand higher given conditions of market speculation (Biggs, Courchamp, Martin, & Possingham, 2013, Zhu 2017, 2018, 2020a, b). Total bans can only be effective if they come from within China and are perceived as well-enforced and permanent, rather than internationally imposed (Harvey, Alden, & Wu, 2017). This was the case with China's ivory ban in 2017, a success by most standards (WWF 2019). While a comprehensive ivory ban was more feasible because ivory is not an ingredient in traditional Chinese medicine, successful bans on traditionally consumed wildlife are possible as long as they are not perceived as part of a broader attack on Chinese culture.

3. Captive breeding

One of the most interesting ways China has tried to address domestic demand for endangered species is through the promotion of captive breeding programs. China has had considerable success in captive breeding of endangered species, from its panda breeding programs to more recent attempts at breeding tigers and bears (Hong et al., 2019, Wang et al., 2019).² Within China, these programs are often perceived to have both environmental and economic benefits: meeting demand and reducing speculative potential, while providing rural livelihoods and saving species. Captive breeding thus appears as a logical supply-side response. Many environmentalists, however, trenchantly oppose China's breeding programs, claiming the trade in captive bred individuals will only legitimate and intensify consumption practices that should be criminalized and stigmatized.³

The global impact of COVID-19 has further entrenched this opposition, with more fervent calls for China to end captive wildlife breeding. China has responded swiftly, issuing a temporary order to suspend all wet markets and captive breeding programs until further notice and to amend the National Wildlife Protection Law regulating the industry (NPC, 2020). The pandemic will certainly alter China's policies towards wildlife trade and captive breeding programs; however, it is unlikely to end these practices entirely. Indeed, there currently remain provisions for the trade in wild animals for medicine, pets, and research to continue. While conservation groups fight to stop categorizing wildlife as a resource to be utilized altogether (Jiang, 2016), many in China note that there is no conservation without utilization and, in certain cases, captive breeding offers "the only feasible approach to China's wildlife conservation-utilization dilemma" (Wang et al., 2019).

² In fact, China has its own "Tiger King," famed long before the Netflix special. Unlike Joe Exotic and his reality show infamy, China's Tiger King, Zhou Weisen, is a respected businessman who is often lauded in Chinese media for his rags to riches success story.

³ Scientific arguments against captive breeding question the genetic integrity of captive versus wild animals, noting genetic drift and inbreeding in the former. Similarly, more symbolic arguments oppose the grim reality of apex predators like tigers and bears – sublime symbols of animal wildness – being reduced to the status of domestic animals, like chickens or pigs.

4. What does this mean for wildlife conservation and pandemic?

The COVID-19 pandemic has opened an unprecedented window of opportunity to pursue reforms, as indicated by China's temporary ban on wet markets and ongoing revisions to the Wildlife Protection Law. This window of opportunity, however, must be approached strategically. There is a clear willingness on the part of Chinese leadership to continue wildlife reforms, but also an extreme sensitivity to demands that are considered an attack on Chinese culture and tradition.⁴ Some features of China's approach to wildlife trade and consumption are on the table for negotiation, and some simply are not. Rather than the blunt instrument of comprehensive bans that can be dismissed as cultural imperialism and ignorance, policymakers and advocacy groups need a tempered, strategic approach – a scalpel, not a hammer. They need to focus on realistic goals, collaboratively achieved. Below, we outline two recommendations for moving forward.

First, start with the low hanging fruit: pangolins and other small mammals prone to spread infectious disease. China's recent ivory regulations have demonstrated that a comprehensive ban can reduce the speculative potential of endangered resources if it is well-backed by authorities within China. Advocating a permanent and well-enforced ban on pangolin and other high-risk mammal sales and captive breeding – while making abundantly clear that it is not an attack on traditional Chinese medicine, nor its foundations based on wildlife utilization – can go a long way to reducing the threat of pandemic and saving species. Such a targeted ban would not rule out captive breeding approaches entirely, but would recognize that captive breeding is limited in an age of global pandemic. Similarly, such a ban would not challenge the fundamental approach to wildlife as a utilizable resource, but would acknowledge that wildlife utilization is simply not feasible for certain high-risk species.

Second, advocate for the regulation and international oversight of wet markets, rather than a total ban. In certain parts of the world, banning wet markets is tantamount to banning supermarkets or other “essential services.” Rather than overturning wholesale this practice that dates back millennia, it needs to be adapted for a globalized world. As with domesticated animal production, large-scale wet markets require regulation and oversight. China is now taking steps to do this. The international community should be a part of this process, but this requires recognizing the value live animals represent to healthful practices in Chinese culture. Again, policymakers and advocacy groups cannot demand the wholesale reconceptualization of wildlife as something to be protected and not used. Indeed, for many Chinese people, there is no protection without use.

In conclusion, COVID-19 has exposed the hidden fault lines in contemporary global life: while the world is materially and economically more interconnected than ever before (“classic” globalization), the ability of international bodies to collectively and legitimately mediate global connections (a second-wave, socio-cultural globalization) lags far behind. As the virus crosses geopolitical and geographical boundaries with equal alacrity, the global response has been provincial in nature, hamstrung by competing political ideologies and cultural inertia. This lamentable dynamic is echoed in the contemporary wildlife trade, where international approaches remain highly polemical or culturally blindered rather than cooperative. Although international fora for realizing global

cooperation do indeed exist – the World Health Organization, the Convention on International Trade in Endangered Species – too often these platforms are instead leveraged to serve nationalistic agendas and rally domestic constituencies. More than any specific institutional architecture, global collaboration requires a good faith effort to engage in dialogue: to understand the culture and motivations of different global actors. This is not about clichéd ideals of embracing cultural difference, but rather about realizing the practicalities of global compromise. This second-wave of globalizing mindsets – alongside globalizing connectivities – is long overdue. Yet it is precisely what is needed for collective action to address collective crises. Our portrayal of wildlife trade in China offers a small step toward that end.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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⁴ “Beware of the West attacking traditional Chinese medicine under the name of wildlife protection” reads a prominent headline in Chinese media. “We are the nation that created traditional Chinese medicine which has a tradition of millennia of use,” the article observes, “we should not ignore our cultural background and blindly adopt Western values” (Wen & Dazhao, 2016).

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